

Amendments to the Claims

1. (*Currently Amended*) A method of generating an adaptative slicer threshold from a received demodulated signal, the method comprising the steps of:

- detecting (in-70) a maximum value of the signal over a predetermined period, |
for at least two periods, and |

- detecting (in-72) a minimum value of the signal over a predetermined period, |
for at least two periods, |

wherein the method comprises the steps of:

- averaging (in-86) several detected maximum values and averaging several |
detected minimum values, and |

- calculating (in-86) the slicer threshold from these average minimum and |
maximum values. |

2. (*Original*) The method according to claim 1, wherein the averages of the maximum and minimum values are calculated using a running average over the n last successive detected maximum or minimum values, n being a predetermined integer greater than 1.

3. (*Original*) The method according to claim 2, wherein n ranges from 2 to 6.

4. (*Original*) The method according to claim 3, wherein n is equal to 4.

5. (*Currently Amended*) The method according to ~~any one of the previous claims~~claim 1, wherein the step (70) of detecting a maximum value comprises the operations of:

- detecting a maximum peak of the signal during the predetermined period, |
the maximum signal peak corresponding to a point where the signal first-order derivative is zero and the signal second-order derivative has a negative value, and |

- holding the value of the detected maximum peak as the maximum value over the predetermined period. |

6. (*Currently Amended*) The method according to ~~any one of the previous claims~~claim 1, wherein the step (72) of determining the minimum value comprises the operations of:

- detecting a minimum peak of the signal during the predetermined period, |
the minimum signal peak corresponding to a point where the signal first-order derivative is zero and where the signal second-order derivative has a positive value, and |

- holding the value of the detected minimum peak as the minimum value over the predetermined period.

7. (*Currently Amended*) The method according to ~~claims 5 and 6~~claim 5, wherein a new detected maximum value is used to calculate the average maximum value only if a minimum peak has been detected during the previous predetermined period, and a new detected minimum value is used to calculate the average minimum value only if a maximum peak has been detected during the previous predetermined period.

8. (*Currently Amended*) A system for generating an adaptative slicer threshold from a received demodulated signal, the system comprising:

- a first detector (20) to detect a maximum value of the signal over a predetermined period, for at least two periods, and

- a second detector (22) for detecting a minimum value of the signal over a predetermined period, for at least two periods,

wherein the system comprises an averaging unit (28) to average several detected maximum values and to average several minimum detected values, and to calculate the slicer threshold from these average minimum and maximum values.

9. (*Currently Amended*) The system according to claim 8, wherein it further comprises at least one FIFO (~~First In First Out~~) memory (24, 26) to store said several maximum values and said several minimum values to be averaged.

10. (*Currently Amended*) The system according to ~~claim 8 or 9~~claim 8, wherein the first and/or second detectors (20, 22) are a maximum peak detector and a minimum peak detector, respectively.

11. (*Currently Amended*) The system according to ~~any one of claims 8 to 10~~claim 8, wherein the system comprises a bit level detector (36) associated with said at least one memory (24, 26) in order to activate the storage of a new minimum or maximum value only if a bit level change has been detected.

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